

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 March 2005 (10.03.2005)

PCT

(10) International Publication Number
WO 2005/022837 A1

(51) International Patent Classification⁷: **H04L 12/43**,
H04Q 11/04, H04J 3/00

(21) International Application Number:
PCT/NO2003/000298

(22) International Filing Date: 27 August 2003 (27.08.2003)

(25) Filing Language: English

(26) Publication Language: English

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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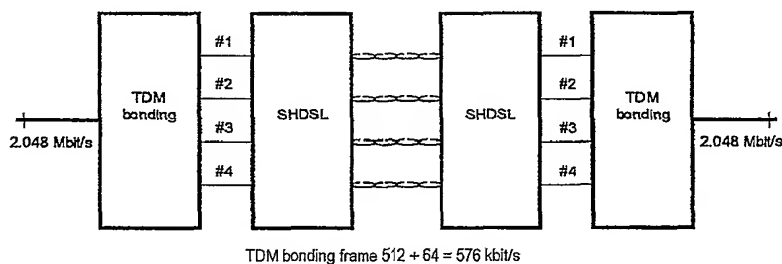
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INVERSE MULTIPLEXER WITH TDM BONDING



(57) Abstract: The present invention discloses one or more network components within a telecommunication network wherein said network is a serial bitstream network and the network components are comprising one or more inverse multiplexers, wherein said multiplexer(s) is/are TDM bonding multiplexers and said multiplexer(s) utilize(s) spare bits and/or FAS bits in a protocol for control of specific functions of the inverse multiplexer(s). The invention further includes a method for

inverse multiplexing of one or more serial bitstreams within a telecommunication network wherein said method uses spare bit and/or frame alignment signals from a protocol to: measure differential delay between transmission lines at the receiving end, and/or secure timeslot integrity by compensation for individual link delay, and/or secure correct transmitter and receiver timeslot sequence by link identification, and/or monitor channel availability by block error checking.

WO 2005/022837 A1